MB-100
MB-200

MB SYSTEM ELECTRONICS INTERFACE



The MB-100 is an electronics interface that powers up to four Crown® mini-boundary™ MB-1, MB-2, or MB-4/E microphones. This interface for four mics reduces the size and cost of the microphone system and reduces installation time.

The MB-100 provides programmable switching to turn the mic on or off if desired (switches not provided). The MB-200 interface also has remote switch sensing via an optical coupler.

Two microphones can be wired to each pluggable terminal block, which plugs into the MB-100 or MB-200 interface. Pluggable terminal blocks are also provided for the balanced outputs on the interface, and for remote switch sensing.

The interface is powered by 18 to 48V phantom power from a mixer or a phantom power supply.

Wiring Interface Mic Inputs

Before installing the mics, wire them to the included pluggable terminal blocks (PTBs) as described below:

1. For the MB-1 and MB-2 mics, solder the proper length of cable to each mic jack as follows:

Sleeve (common ground) to cable shield

Tip (audio) to cable (+) lead

Ring (LED) to cable (–) lead

2. Wire the cables for two adjacent mics to the PTB as shown in Fig. 2.

If you do NOT want the LEDs to light, disconnect the leads from PTB terminals 2 and 5.

3. Similarly, wire MICS 3 and 4 (if used) to another 6-prong PTB.

Wiring Interface Outputs

Please refer to Fig. 3. Repeat this wiring for another interface output (if used).

Wiring Mic On/Off Switches

As supplied from the factory, the mics are always on. For optional user control of each microphone, you can use either a momentary or a push-on/push-off SPST switch (not supplied). Proceed as described below:

1. Two switches connect to one pluggable terminal block (PTB). Run a twisted pair from each switch to a 4-prong PTB, and connect as described below (Fig. 4). Wire polarity does not matter.

Switch for mic 1 to PTB terminals 1 and 2

Switch for mic 2 to PTB terminals 3 and 4

2. Similarly, wire switches for mics 3 and 4 (if used) to another PTB.

Wiring for External Switch-Closure Sensing (MB-200 only)

If external switch-closure sensing is desired, wire two sensing circuits to one PTB as shown in Fig. 5. Repeat this wiring for another pair of mics (if used).

Setting Internal Switch, Gating, and EQ Controls

Remove the MB-100 interface cover. Locate the four slide switches, one for each mic (see Fig. 6). Set each switch to one of these modes:

Push-on/push-off

Momentary on (press-to-talk)

Momentary off (mute or privacy button)

Set the low-cut and internal-gate defeat as desired for each mic. Low-cut is –7 dB at 100 Hz.

Features

- Interfaces Crown MB-1, MB-2, or MB-4/E microphones to a mixer with phantom power
- Interface powers up to four mics via phantom power from mixer and provides four balanced low-impedance outputs
- Pluggable terminal block (Phoenix type) connectors
- MB-100 provides programmable mic switching
- MB-200 also has remote switch sensing via optical coupler

Specifications

For microphone specs, see the individual data sheets for the MB-1, MB-2 and MB-4/E.

Output impedance: 150 ohms, balanced (recommended load impedance 1000 ohms or greater).

Polarity: Positive (inward) pressure on diaphragm produces positive voltage on output terminal 1 with respect to terminal 3, and on terminal 4 with respect to terminal 6.

Operating voltage: Phantom power, 18 to 48V DC on output terminals 1 and 3 with respect to terminal 2, and on terminals 4 and 6 with respect to terminal 5.

Operating temperature range: –10° to +50° C, or +14° to +122° F.

Current drain: 5 mA nominal per mic.

Cable connectors (supplied with MB-100 or MB-200 interface):

- Pluggable terminal block (PTB) for connecting two microphones to two mic inputs on the interface. Two of these PTBs are supplied, for use with up to four mics.
- PTB for connecting two mic-level outputs to two mixer mic inputs. Two of these PTBs are supplied, for use with up to four mics.
- PTB for connecting two mic on/off switches (switches not supplied). Two of these PTBs are supplied, for use with up to four mics.

(MB-200 only) PTB for external switch-closure sensing. Each PTB connects to two external circuits (circuits not supplied) that sense closure of the mic on/off switch. Two of these PTBs are supplied, for use with up to four mics .

Chassis connectors:

MIC1/MIC2 IN (connects to mics 1 and 2).

MIC3/MIC4 IN (connects to mics 3 and 4, if used).

MIC1/MIC2 OUT (connects to mixer mic inputs 1 and 2).

MIC3/MIC4 OUT (connects to mixer mic inputs 3 and 4, if used).

MIC1/MIC2 SWITCH (connects to on/off switches for mics 1 and 2).

MIC3/MIC4 SWITCH (connects to on/off switches for mics 3 and 4).

MIC1/MIC2 external switch-closure sensing (MB-200 only).

MIC3/MIC4 external switch-closure sensing (MB-200 only).

Cable: None supplied. For the MB-1 and MB-2, use two-conductor shielded mic cable between phone jack and pluggable terminal block. For the MB-4/E, the mic cable is permanently attached to the microphone. Use two-conductor shielded mic cable between interface output and mixer input. Use twisted-pair cable between each user switch and interface.

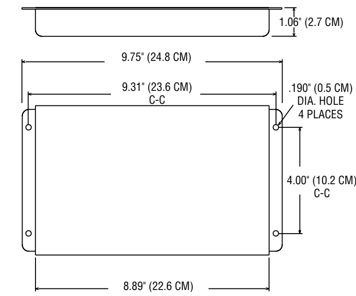
Materials: Steel chassis.

Finish: Satin black.

Net weight: 2 pounds, 5 ounces (1.048 kilograms).

Dimensions: See Fig. 1.

Fig. 1



MB-100 and MB-200 Dimensions

Fig. 2

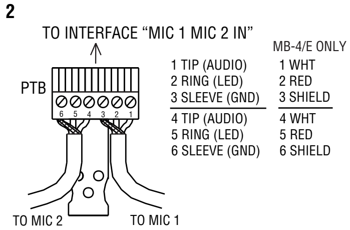


Fig. 3

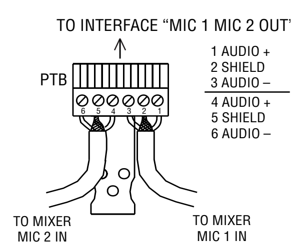
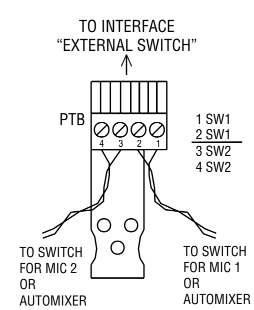
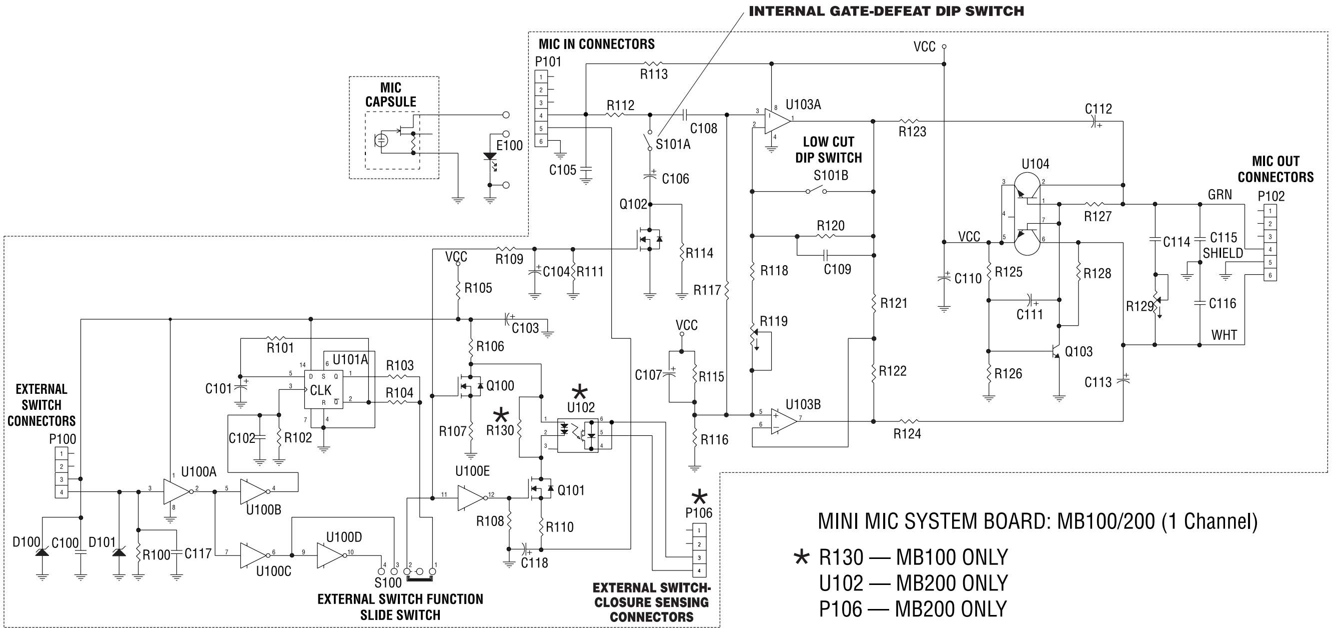


Fig. 4



INSTALLED

MB-100
MB-200



MINI MIC SYSTEM BOARD: MB100/200 (1 Channel)

* R130 — MB100 ONLY
U102 — MB200 ONLY
P106 — MB200 ONLY

Fig. 5

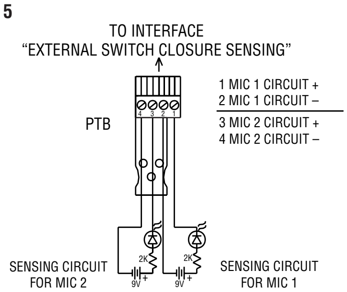
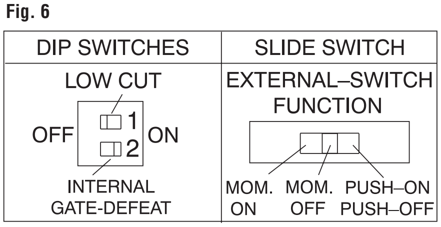


Fig. 6



Installation

Please refer to the example in Fig. 7 for installation steps.

1. Using the supplied mounting screws, mount the MB-100 or MB-200 interface to the underside of the table in the center.

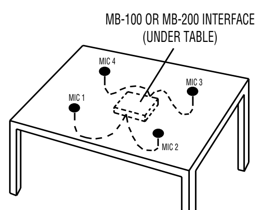
Note: Interface should be installed within 30 ft (9.15 m) of microphone location.

2. Plug the PTB connected to mics 1 and 2 into MIC 1/MIC 2 IN, etc.

3. Plug the PTB connected to mixer inputs 1 and 2 into MIC 1/MIC 2 OUT, etc.

4. Plug the PTB connected to mic switches 1 and 2 into MIC 1/MIC 2 SWITCH, etc.

Fig. 7



5. If external switch-closure sensing is being used with the MB-200 interface, plug the PTB connected to the sensing circuits for mics 1 and 2 into EXTERNAL SWITCH CLOSURE SENSING (MIC 1/MIC 2), etc.

Operation

1. If on/off switches are installed, turn each mic on in turn and talk into it while seated at the table. The LED should light when the mic is on (unless this function was disabled).

2. Turn up the mixer volume control for that mic to the desired volume.

Architects' and Engineers' Specifications

The product shall be a Crown MB-100 (or MB-200) interface or equivalent. It shall power up to four Crown mini-boundary mics. The interface shall be powered by 18 to 48 V phantom power.

The MB-100 shall provide programmable switching to turn the mic on or off if desired (switches not provided). The MB-200 interface also shall have remote switch sensing via an optical coupler.

Pluggable terminal blocks shall be provided for microphone inputs. Pluggable terminal blocks also shall be provided for the balanced outputs on the interface, and for remote switch sensing. The Crown MB-100 and MB-200 are specified.

Warranty

Crown professional microphone products are guaranteed against malfunction from any cause for a period of three years from date of original purchase. See enclosed warranty sheet for additional information.

Service

If the microphones and interface do not function properly, first double-check the PTB wiring and switch settings as described in this data sheet and in the microphone data sheets. Check for correct microphone orientation.

If you determine the microphone product(s) is defective, return the complete product in it's orignal packaging to: **Crown Factory Service, 1718 West Mishawaka Road, Elkhart, IN 46517-9439.** A Service Return Authorization (SRA) is required for product being sent to the factory for service. An SRA can be completed on line at www.crownaudio.com/support/factserv.htm. For further assistance or technical support call **800-342-6939**.

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